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September 28, 2016

**VIA ECFS**

Marlene H. Dortch, Secretary  
Federal Communications Commission  
445 Twelfth Street, S.W.  
Washington, DC 20554

Re: *Business Data Services in an Internet Protocol Environment et al., WC  
Docket Nos. 16-143, 15-247, and 05-25 and RM-10593*

Dear Ms. Dortch:

On September 27, 2016, representatives from CenturyLink, Inc. (“CenturyLink”) met and spoke with Commission staff members regarding the above-referenced proceedings. Attending in person for CenturyLink were Melissa Newman, Jeff Glover, Jeff Lanning, and Christy Londerholm. Participating for CenturyLink via telephone were Craig Brown, Carolyn Hammack, and Gary Kepley. Deena Shetler, David Zesiger, Pam Arluk, and Bill Kehoe of the Wireline Competition Bureau attended, as did Bill Dever of the Office of General Counsel.

During the meeting, CenturyLink discussed the points set out in the attached presentation. Specifically, it explained that the rule changes being contemplated by the Commission would have far-reaching operational and procedural impacts, broadly affecting business systems, regulatory procedures, and compliance efforts and necessitating an appropriate implementation glide-path. Proposals now under consideration would require multiple follow-up proceedings and would consume significant agency resources. The competitive market test, for example, will require close monitoring of the services provisioned, which in turn will entail extensive ongoing work by ILECs and CLECs alike. Moreover, the experience associated with other complex rulemakings, such as the USF/ICC transformation, shows that transitions from one regime to another tend to take substantially longer than expected. The Commission must consider all of these issues when developing new rules to govern the business data services marketplace.

Sincerely,

*/s/ Russell P. Hanser*

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Russell P. Hanser  
WILKINSON BARKER KNAUER LLP

Attachment

September 2016



# Business Data Services Order Implementation Issues

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# Overview

- Business Data Services (BDS) changes being contemplated by the Commission will have far reaching operational and procedural impacts.
- Entire business systems, regulatory procedures and associated compliance checkpoints will be dramatically altered which will result in a long implementation glide path
- BDS changes under consideration are vastly more complex than existing regulation and price cap rate making and filing procedures.
- Multiple follow up proceedings, rulemakings and clarifications are certain to be required.
- Commission staff resources will be heavily taxed for the foreseeable future as the BDS order gets implemented.

# The Most Complex BDS Implementation Issues

Several issues in the BDS proceeding drive the most complexity, thereby necessitating major systems upgrades while requiring numerous FCC rules changes, clarifications, data requests and potential legal challenges:

1. Changing the geographic unit from a wire center to a census block, census block group or census tract
2. Implementing the competitive market test based on the new census X geographic unit will affect BDS pricing
3. Implementing price changes may require an extensive circuit audit to examine what portions are regulated
4. Updating and reconfiguring ILEC, CLEC, and 3<sup>rd</sup> party systems used for pre-ordering, ordering, provisioning, billing and compliance reporting
5. Rewriting numerous FCC rules will be required, particularly from a pre-ordering, ordering, order verification, provisioning, and billing standpoint

# Increased Geographic Complexity

**Changing geographic units from a wire center to a census X will be, by far, the most complex and far reaching BDS Order impact.**

- Wire Centers are currently fully identifiable across ILEC, CLEC and 3<sup>rd</sup> Party systems and are used extensively to validate available plant facilities, determine the need for new construction, dictate pricing rules, and facilitate accurate billing.
- This will force a change from the Price Cap and Price Flex regime to a new Competitive and Non-Competitive geographic and service view of the marketplace.
- New regulatory rules will be required to implement a complex decision tree determining what rules prevail for individual circuits at various geographic locations.
- There are thousands of wire centers and millions of census blocks. **The smaller the geographic unit chosen, the greater the amount of work and time required.**
- Nationwide, geo-coding accuracy varies from vendor to vendor and there are many problems with location accuracy today.
- ILEC, CLEC and 3<sup>rd</sup> Party systems and processes will need to be modified.
- BDS changes of this magnitude that affect customers like PSAP's, hospitals and schools necessitates significant system testing before a cutover.

**ILECs, CLECs, External Database Administrators, FCC Staff and will all have time consuming, costly work to perform.**

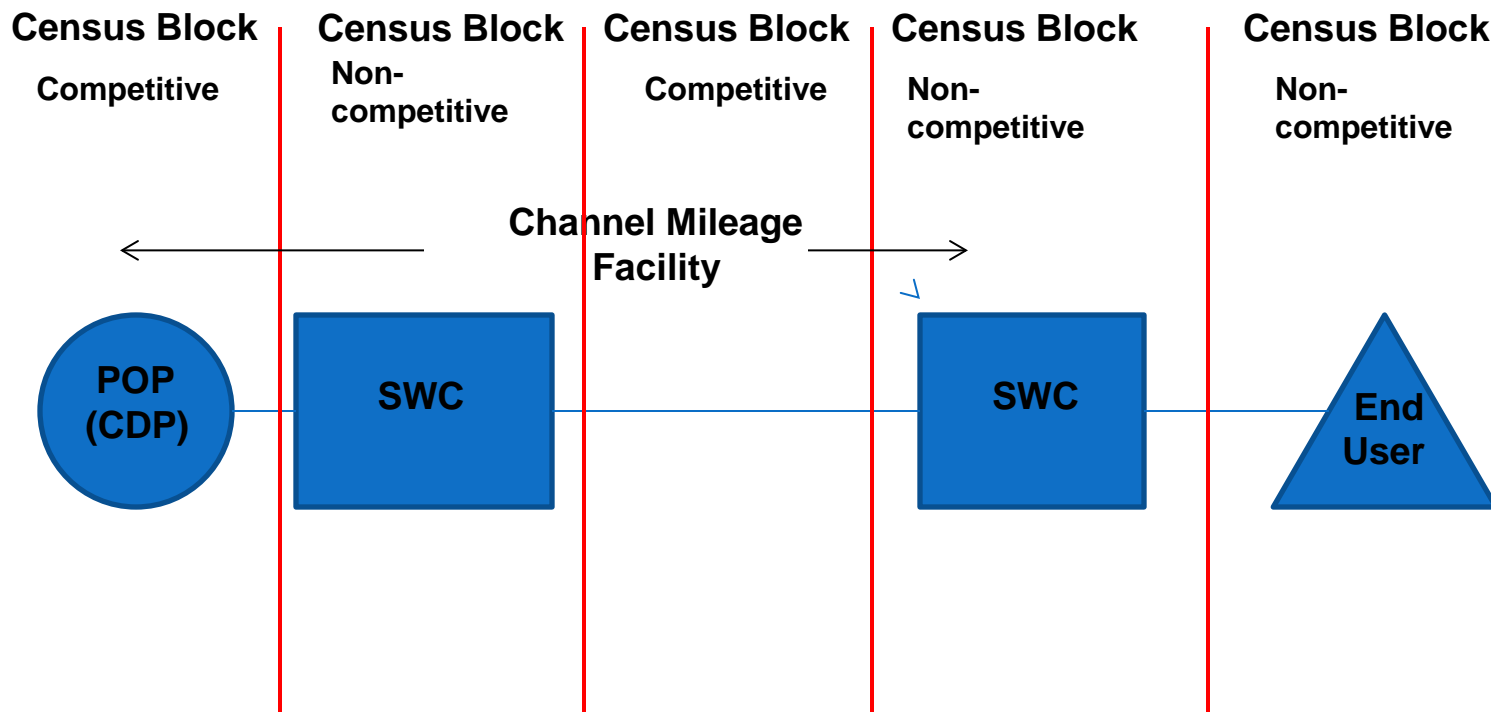
# Is it Competitive or Non-Competitive?????



**Determining if a service and / or a market is competitive or non-competitive will ultimately lead to extensive circuit audits with census X map overlays and some BDS service re-pricing**

- The FCC will have to update its previous BDS data collection to determine which markets are competitive and non-competitive
- An ensuing challenge process will be required given inaccuracies in the last data submission.
- The results will have to be published and a new geographic coding system will need to be used to classify circuits.
- A lengthy circuit audit will likely be required.
- New rates, and orders based on census X levels may not be able to be implemented until systems changes are made.

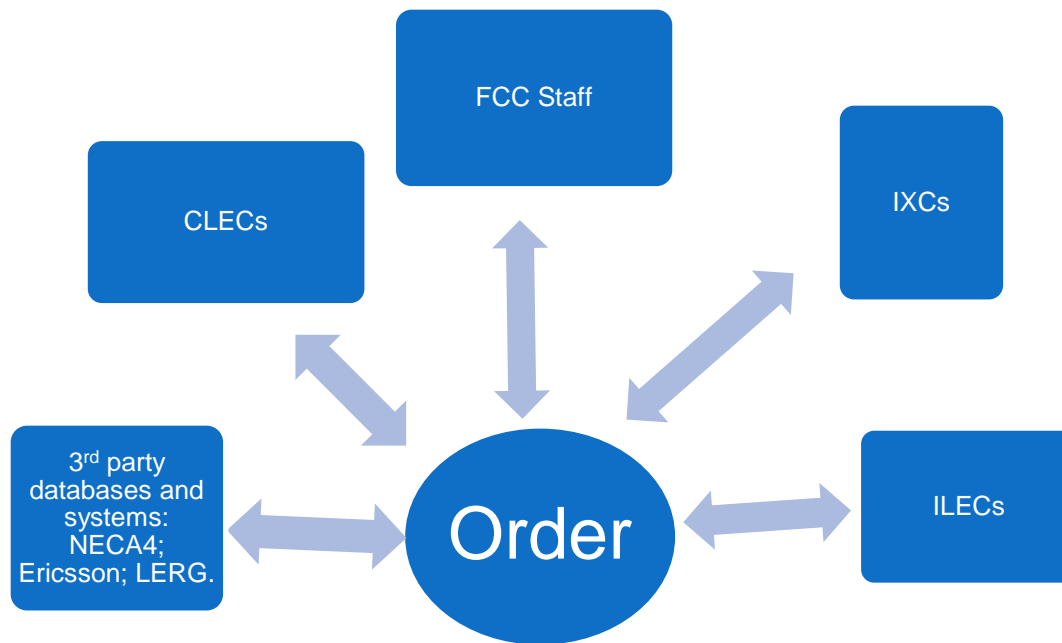
# Challenges Auditing Circuits



A circuit could traverse several wire centers encompassing multiple competitive and non-competitive Census Blocks. CenturyLink's average mileage in dense areas is 55 miles. The additional layer of complexity could add to customer confusion and potential for error. **NECA4 manages the network distance for the providers.**

# The Ripple Effect

ILEC, CLEC and 3<sup>rd</sup> Party Verification systems will have to be modified. This is NOT just an ILEC Issue, our systems are inextricably intertwined in the BDS service delivery process



**End User Customers**



# ILEC and CLEC Systems Are Intertwined



Wholesale customers have a direct interface into ILEC systems to verify location service availability, check prices, to place single or multiple orders, and to make changes to existing services

If a unique, highly specialized order is required, our Offer Management Team gathers the details from the wholesale customer to produce a price for the potential new service.

- What is the service? Is it Regulated or Forborne?
- If regulated, where is the service? Price Flex or Price Cap
  - Does the service cover more than one geography? If so, the pricing rules may be different.

• Internal IT Systems incorporate manage the regulatory and business rules for an offer. Rules are managed across services and wire centers.

The customer accepts the offer.

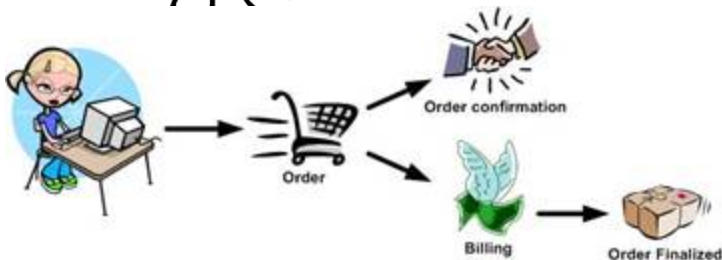
The customer enters the order into the order and provisioning system.

Internal IT Systems manage the rules for an order. This is a second check that the final accepted offer is following regulatory rules and sets up billing for the service.

The customer is billed for their new service.

Internal and External Systems currently track circuit demand at a wire center level. Various External and Internal IT tables are used to determine the final unit billed amount.

**Each customer touch point will be impacted.**



# Updating FCC Rules / Models / TRP's

## Extensive Rules Re-Writes will be needed:

- Existing tariffs will require extensive modification
- They were written under the Price Cap and Price Flex regime utilizing a wire center basis. They will need to be modified to incorporate the new geographic census X unit.
- The annual price cap model and Tariff Review Process data preparation process (TRP) will require substantial modification.
  - Implementing the initial Price Cap Plan and the CALLs Order took substantial industry resources and time.
- Tariffs will need to be rewritten to incorporate the new regulatory rules around competitive versus non-competitive areas and services. The current library universe encompasses 100,000 plus pages in documentation.
- If forborne services such as Ethernet become rate regulated, posted service guides will require the same review as the tariffs and tariff books will need to incorporate the new regulation.
- FCC Staff and BDS customers will need to review the new rates and tariff documents.
- Potential challenges to newly-proposed to the rate structure, tariff language, or existing contract interference will require time to address.

# Implementation Timeline

This change cannot be compared to the ICC changes. The ICC changes were ONLY to intrastate rates in the first year, and there were no immediate structural changes to rates.

Leverage off of a known implementation timeline:

## USF to CAF Transformation Initial Expected Order Timeline:

- “We expect that the model and competitive bidding mechanism will be adopted **by December 2012, and disbursements will ramp up in 2013 and continue through 2017.**” Par. 25
- “**CAF Phase II will begin on January 1, 2013.**” Par. 148

## Actual Timeline:

- Ultimately, there were 7 Reconsideration Orders ending in June 2014.
- First funds were received in September 2015, *2 years later than the Order contemplated.*
- Model finalized April 2014 well *over a year past the anticipated timeline* - DA 14-534.
  - Speed requirements finalized –DA 14-190A1 December 2014
- First Challenge Process finalized –DA 15-383 March 2015
- Second Challenge Process finalized –DA 15-148A1 November 2015; Builds can start.
- CAF II Program to end 2021

# Conclusion

- Implementing Business Data Services (BDS) reform will be very complicated and take a great deal of FCC staff and Industry resources.
- New industry standards will have to be developed and implemented for billing and compliance purposes.
- Multiple FCC proceedings, rulemakings and clarifications will be necessary.
- The Industry has come together in the past to work through the details.
- With the 2020 census nearing, the Commission should carefully consider the geographic unit it chooses and how to simply classify multi-location circuits traversing competitive and noncompetitive areas

# Appendix

# Significant Upfront and Ongoing Work

## FCC Requirements post Order

At the same time Staff will be working through the CAF II Reporting

- Work out the details and publish clarifications.
  - The CAF II implementation process required 7 Clarification Orders
  - Develop FCC Compliant Forms similar to the Tariff Review Plan Model currently used by ILECs.
- Determine Competitive Census X
- Develop Challenge Process
  - Competitive designations - GIS data is far from perfect, particularly in rural areas;
  - Service Providers – if 2013 data is relied upon, this is a critical challenge data point.

## External Stakeholders post Order

- Customer Interfaces with CenturyLink: Ordering & Billing
- Substantial IT System Changes
  - Ericsson's Industry Standards and Alliance for Industry Standards used by industry carriers for access billing.
  - NECA – wire center structure may require work for sub wire center and cross-wire center (to the extent a Census X crosses multiple wire centers).

## Price Cap ILEC Industry post Order

- Substantial Internal IT System Changes
- Substantial Tariff Document Rewrite
- Substantial Internal Process

# Customer Touch Points

Every required system change has customer impacts. Pre-Order, Ordering and Billing are business critical for our customers.

## Service Validation, Pricing and Ordering:

- For some services, customers log into CTL with the service address to validate service availability and price.
  - Customer can then enter an order which starts the provisioning process.
- For other services, the customer works directly with a sales team.
  - Sales team consults with CTL wholesale system SME's to understand regulatory rules.
  - Customer enters the order into CTL system

## Provisioning:

- Internal systems verify the information; when an error is noted, the customer's service can be delayed.

## Billing

- Bills are generated based upon service and end-user location. When CenturyLink's customer audits their bill, they may disagree with billed amount and timely, costly work for both parties ensue.

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# Costly External and Internal IT System Changes

## Geography:

- Current Requirements: Wire Centers –fully identifiable across all ILEC, CLEC, and 3<sup>rd</sup> party IT systems and serve as the basis for plant inventories, new construction requirements, pricing, and billing.
- Anticipated Change: Census X – each wire center could have pockets of non-competitive locations or services, therefore the development and implementation of a very granular identification code will be required for each service and circuit for regulatory compliance. External industry relied upon databases for mileage and billing (e.g. NECA, Ericsson)

## Regulatory Pricing Rules:

- Current Requirements: MSA – Price Flex or Price Cap; Forborne or non-forborne; currently determined at a wire center level. Services can drive regulatory treatment, e.g. DS1, Ethernet. Some services are forborne others are not.
- Anticipated Change: Speed, geographic location and customer class of the service may determine pricing flexibility for the same circuit ID; Census X will determine pricing compliance versus wire center. Study area average pricing will require development of a disaggregation methodology.

# Systems Changes Require Training & Education

## **Extensive Rules Re-Writes will be needed:**

An extensive document database is currently maintained to allow for training and reference on the Order and Offer process that incorporates the Regulatory Rules around Special Access.

- In tandem with the IT system changes, major training and compliance updates will be required.
- Training of individuals who touch any part of end-to-end special access service will be required.
- Customer notification, education and training on the new systems will be necessary.

## Geographic Location Issues:

- Various GIS software will apply less than perfect latitude and longitudes using different methods.
  - Disputes will arise in determining if an exact location is in a competitive area or non-competitive.
- Census designations are not static

| 2010 vs 2000 Census Tallies of Census Tracts, Block Groups & Blocks |            |           |           |            |
|---|------------|-----------|-----------|------------|
| UNITED STATES   | 2010       | 2000      | Increase  | % Increase |
| Census Tracts   | 73,057     | 65,443    | 7,614     | 12%        |
| Census Block Groups   | 217,740    | 208,790   | 8,950     | 4%         |
| Census Blocks   | 11,078,297 | 8,205,582 | 2,872,715 | 35%        |